Sandia LAB NEWS

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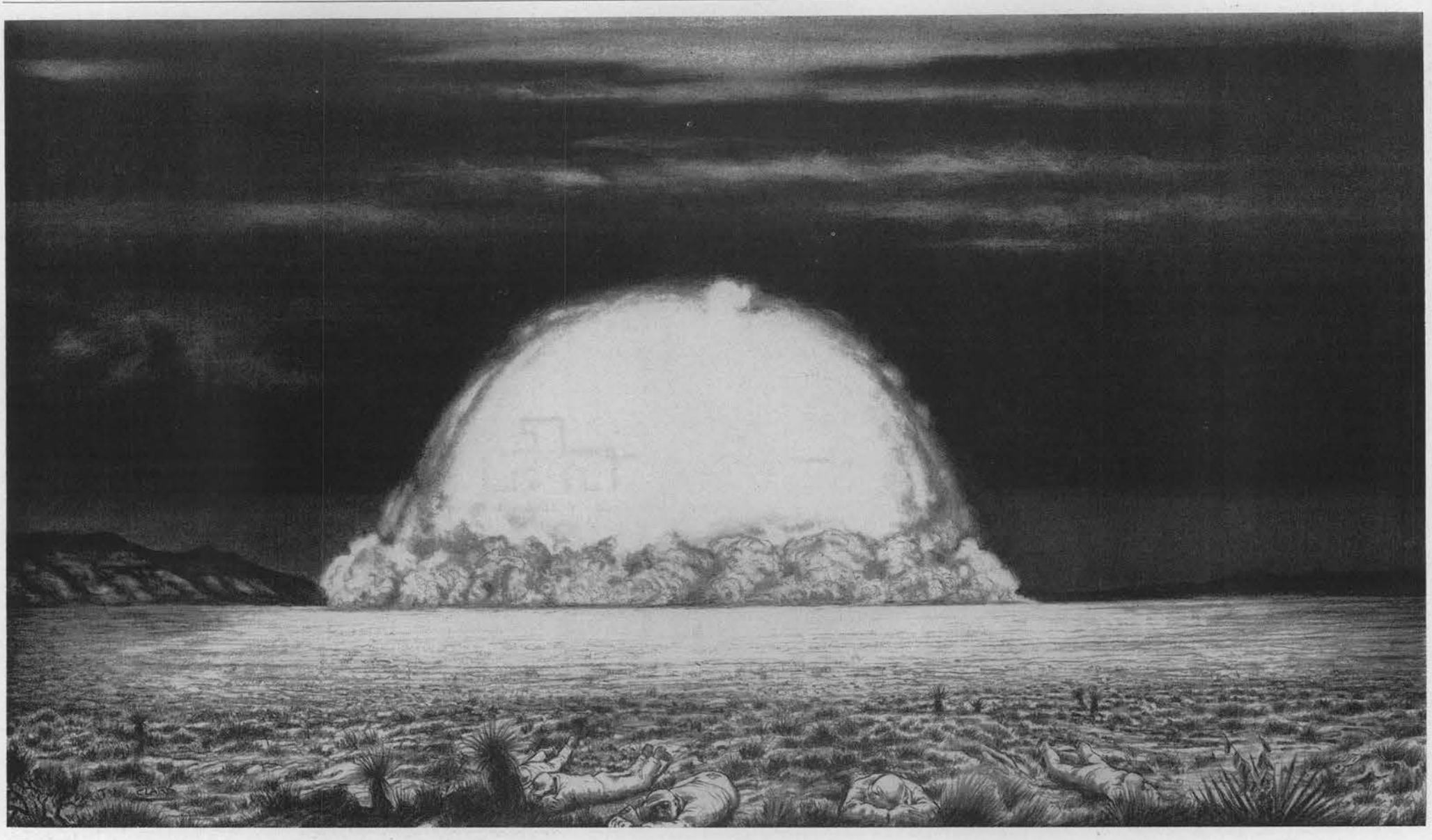
A sight which can never be seen by the naked human eye is depicted here by Sandia Corporation technical artist Terrence Clark.

It is a dramatization of the detonation of the first nuclear device a millionth of a second after firing. The place: Trinity, New Mexico. The time: 5:30 a.m., July 16, 1945.

The fireball has not yet been formed, the intense white flash is reaching its peak and reflecting off storm clouds which had threatened to cause postponement of the test.

Artist Clark talked with several scientists who were present at the test, examined photographs of the Trinity fireball and studied up on the terrain of the area before drawing this sketch.



Trinity Anniversary Observed This Week

What's going on up there on the hill, wondered people in the valley of the Rio Grande below.

The War Department answered the question about Los Alamos Scientific Laboratory in the fall of 1945 when a statement was issued explaining that the Laboratory was making "mankind's successful transition to a new age, the Atomic Age."

Prior to that momentous news release, which came out of the Pentagon when the Allied world used the atom bomb in the war with Japan, the activities of the super secret installation near Santa Fe, New Mexico, were known only to a select few.

Speculation among New Mexicans was varied. Common talk held it to be a factory where a space ship was being made or perhaps windshield wipers for submarines. No one is known to have guessed its real purpose.

It was back in Spring of 1943 when Major General Groves arrived at Los Alamos, until then the site of a boys' school, with a handful of scientists. As the Laboratory grew and its scientists raced with time, work and tension mounted.

Theoretical studies had proved the feasibility of a nuclear fission bomb. Differential equations and integral experiments then had confirmed it. An enormous step lay ahead—there must be an actual field test of this new weapon with full instrumentation.

A site not too far from Los Alamos was picked—a desolate area of the storied Jornada del Muerto (journey of death) between Alamogordo and Socorro in south-central New Mexico. The operation was given the code name "Trinity".

Engineers and scientists, among the best in the world, began to make ready for detonation of the first atomic device. Several of these men are now with Sandia Corporation, still studying the atom and finding how to make it a better weapon for peace.

Early in spring of 1945 the men of Los Alamos began final preparations. Operations moved to the test site in a deserted section of Alamogordo Air Base. There were no elaborate laboratories or accommodations there in the middle of the desert. Scientists, engineers, technicians and others slept in old CCC barracks which had no windows. The Army fed them from mobile field kitchens.

Secrecy was the word and as these men labored not even their families knew where they were or what they were doing. MP's attached to the project patrolled the area watchfully. The curious were turned away and there was furious activity throughout the day and night on the old McDonald ranch.

July 12, 1945, final laboratory work on the gadget was completed in a deserted ranch house. Two days later the unit, now completely armed, was hoisted up to the top of a 100-foot tower.

Tedious instrumentation checkout was begun and by predawn of July 16 all was ready for the test. All but the weather. Ominous thunder and lightning of a coming storm worried the scientists. Near 4 o'clock the light rain stopped, the weather cleared.

At 5:30 a.m., July 16, 1945, there occurred the "unprecedented, magnificent, beautiful, and terrifying" detonation of the world's first nuclear fission bomb.

The story of that first nuclear experiment is 10 years old, but still is news. In this issue of the *Sandia Lab News* the 10th anniversary of the Trinity shot is recalled.

July 16, 1945, Newspapers Filled With War News; But Trinity Remained Secret

Wartime newspapers of Monday, July 16, 1945, carried on with "business as usual" with only minor attention given to the "explosion" at Alamogordo, N. M.

Headlining the New York Times on that date was: "Truman and Churchill in Berlin for Start of Big 3 Talks Today; U. S. Fleet Scorches Foe's Cities."

The weekend saw General Dwight D. Eisenhower escorting President Harry S. Truman on a 35-mile drive through some of the battered cities of Belgium.

Chinese assault troops that day reportedly had recaptured the lost American airfield at Kanhsien, 250 miles north of Hong Kong and a Tokyo newspaper warned its government that "even the most detailed plans are of no use if they are only theoretical plans."

London "lit up" for the first time since 1939 and Britishers celebrated the end of black-outs as war emphasis shifted to the Pacific.

Three books featured in the review columns that weekend were "Journey Through Chaos" by Victor Alexandrov, "Lili Marlene" by Ruth L. Yorck, and "The Pool" by Dana Burnet.

The army called for 1,600 large dogs for service in combat zones—and the ration calendar called attention to the fact that Stamp 36 was good for five pounds of sugar — through August 31.

That day the Braves toppled the Cardinals 3-1 and 5-3, the Pirates beat the Dodgers, the Giants succumbed to the Chicago Cubs.

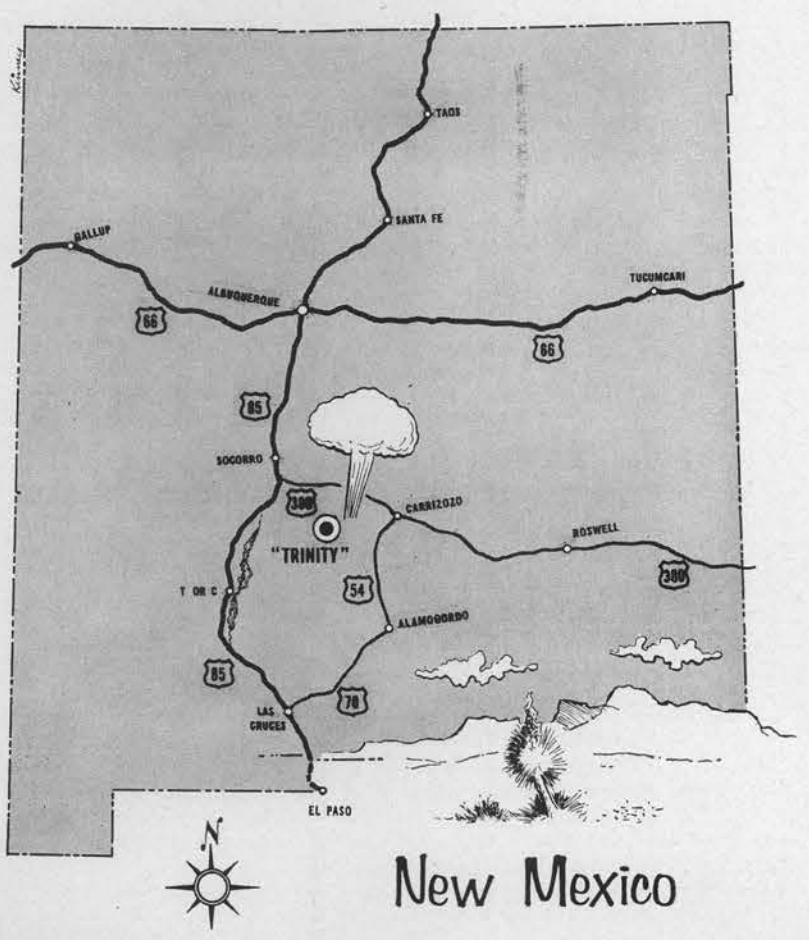
"Wildlife" was reported as winning the major race at the Aqueduct and "Pot O' Luck" took the Arlington classic.

In Albuquerque the Morning Journal noted that University of New Mexico war veterans planned their initial meeting; the Kimo Theatre was featuring "G.I. Joe."

The Albuquerque Community Chest goal for 1945 was announced at $45,000.

Albuquerque Tribune columns disclosed that Mrs. Ernie Pyle was presented a Jo Davidson bust of her famous war correspondent husband at ceremonies in the Pyle home, 700 South Girard.

By and large the crowded news pages of all American publications devoted the majority of their space to action on the World War II fronts —an early end to hostilities was, that week, unforeseen.



SANDIA LAB NEWS

Friday, July 15, 1955

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Beneficent Use of Atomic Power Will Prevail

Lewis L. Strauss, Chairman of the United States Atomic Energy Commission, spoke on the development of atomic energy at Rockhurst College recently. His comments on man's venture into this new field are particularly appropriate at this time.

Following are a few paragraphs from his speech:

"It was only 10 years ago this summer in the early darkness of the New Mexican desert that the first atomic bomb was exploded. . . .

"In the years that have since passed we have seen great progress, not alone in developing the destructiveness of nuclear energy for war but in perfecting its beneficial uses as well. The hostile climate of world affairs and the menaces from those who would destroy freedom . . . have compelled us to develop and stockpile atomic weapons—in simple defense. We have no other prudent alternative. Our security and our hopes of avoiding war are grimly measured by the quantity and the efficiency of our weapons. . . .

"Now man has discovered atomic energy which can greatly benefit or terribly injure him. . . . This latest capacity for destruction on a gigantic scale is balanced by the equally heroic dimensions of benign use.

"History offers us a reason for faith and for the confident belief that providence intends that the release of the energy of the atom through the instrumentality of man's genius, will promote the greater happiness of men.

"Faith which moveth mountains will also govern the atom. I believe that the beneficent use of power which the Almighty has placed within the invisible nucleus will prevail over the forces of destruction and evil."

Trinity Sidelights

The vast human effort which went into the Trinity Test was filled with small events which are part of the big story.

There were 25 or so Counter Intelligence Corps agents scattered throughout New Mexico to investigate any excitement or undue interest among the state residents after Trinity shot. Most of them carried micobarograph instruments to record the intensity of the blast. The machines record pressure changes with pen marks on a paper chart. Pressures were recorded but New Mexicans showed no special or unusual reaction to the explosion of man's first atomic bomb.

Sandia's Jerry Jercinovic may be the first man in history to spend the night with an atomic bomb. The staff taking the unit to Trinity drew straws to see who would stay with the bomb the night before the trip started from Los Alamos. Jerry was the man and spent the night beside the weapon.

The Carrizozo cows are among the country's most famous members of the bovine family. The critters received some radiation from the Trinity shot and have been under study since. The cows and their descendents have been cared for by the University of Tennessee and if cows can live the life of Riley, they are.

There was considerable speculation about what the yield of the bomb would be. For a dollar men at the site could make a guess—and the winner would take all the dollars. Several recall that the winner was the man who guessed the highest number of kilotons.

Down in Socorro, a town which actually is much nearer to Trinity site than the much better publicized Alamogordo, they display a scrap of metal which is reputed to be "a part of the first atomic bomb." It isn't, but is a piece of metal from a device connected with the project.

Several of the scientists who worked many months at Trinity maintain the real heroes of the test were the men of the small military detachment guarding the site. They arrived about Christmastime of 1944 and didn't leave the site until after the shot in July of 1945.

New Mexico newspapers cooperated "beautifully" with the department of defense before and after the Trinity shot. Trinity scientists will be forever grateful for this.

A Trinity civilian contractor, somewhat in his cups, walked up to a Santa Fe radio newscaster and told him if he wanted to get a story on the biggest thing yet go down to a place near Socorro on July 16. This might have been the leak that tipped off the Japanese, but due to Army thoroughness this newscaster was in reality a CIC agent and Mr. Contractor spent the remainder of the war in isolation on his ranch.

Scientists in the Manhattan Engineering Project have received 100 per cent of the credit for the success of the Trinity experiment. "They shouldn't," Dr. John Williams, deputy test director says, "much of it should go to their wives who lived in uncertainty and sometimes fear during those trying years." And to top it off they never knew what their husbands were doing — and they never asked.

REMAINS OF TOWER—After Trinity shot scientists carefully studied the damage caused by the bomb's detonation. The tower was vaporized except for the stump of one leg, as shown in this picture. Dr. Robert E. Oppenheimer, third from left, stands next to Major General Leslie R. Groves, head of the bomb project.

U. S. Army Intelligence Officer 125 Miles Away Wondered

Did Anyone Survive Trinity?

Two Los Alamos scientists today retain vivid and lasting memories of the days of Trinity in July, 1945. One saw the detonation from 10,000 yards and the other saw it from the fourth floor of the Hilton Hotel in Albuquerque, some 125 miles away.

The man at 10,000 yards joined the "near hysterical elation" of his fellow scientists. The man in the Hilton Hotel wondered if anyone was left alive at Trinity.

Dr. John Williams, now a physics professor at the University of Minnesota and constultant to Los Alamos Scientific Laboratory, was one of the men at 10,000 yards.

Dr. Williams was deputy director in charge of field services at the Trinity experiment. Director was Dr. Bainbridge, now of Harvard University.

"My initiation into the project, which climaxed with Trinity, came with a call from Oppie," Dr. Williams reports. After some work in the University of Minnesota laboratories, he went to Los Alamos, arriving March 13, 1943, the first scientist to take up permanent residence at The Hill. General Groves and the others arrived a month later.

"In February, 1945, we started going to Trinity site once a week, leaving Monday and coming back Saturday," he relates. When July arrived he went to Trinity to stay until the test was completed.

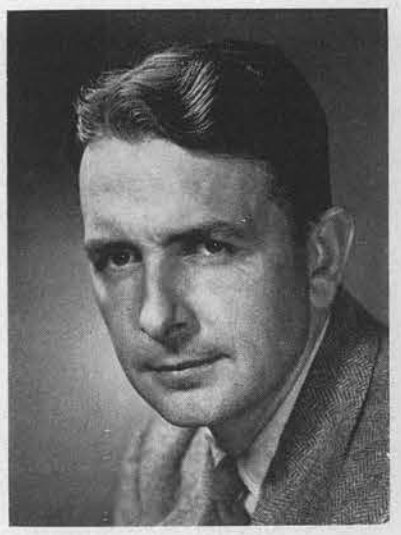
"The Los Alamos staff was a dedicated group," he recalls. "It was not uncommon to have a 24-hour work day."

Sleep was forgotten by the scientific staff as the final preparations for the shot began. For three days and nights they worked without rest.

"There were endless details," Dr. Williams says, "and everything had to go just right."

As the time for the test arrived Dr. Williams went to the 10,000 yard observation point, which was a bunker, south of ground zero.

"Just before shot time I crawled out of the bunker, sat on the ground facing away from the bomb tower." Dr. Williams has a hard time remembering his sensations at that moment. So tense was the atmosphere that the hour and a half postponement due to storm clouds passed without recognition.



Dr. John Williams
—"hysterical elation"—

"At 10 seconds Sam Allison's voice came over the loud speaker." Dr. Allison, now director of the Institute of Nuclear Studies at the University of Chicago, was the first person in history to give the countdown on an atomic weapon detonation—an agonizing 10 seconds for these men who were making history.

"I was looking away from the shot, and at the sound of Sam's voice saying 'fire' the back of my neck felt as though it was scorched by the intense flash of white light. We didn't expect such a violent phenomenon. Mountains 20 miles away were illuminated brighter than day. And I was looking through welder's glasses at the time.

"I counted five and then turned around to watch the fire ball roll skyward. The others came from the bunker and watched the spectacle.

"We experienced an hysterical elation and at the same time a sobering realization of what we had done."

Dr. Williams recalls that a few hours after shot time he went to within 800 yards of ground zero for a few moments to study the effects of the blast. Lead-lined army tanks got closer sooner, but it was not safe for study without protection.

"One little stump of concrete was left. The rest of the 100-foot steel tower was vaporized," Dr. Williams remembers.

* * *

Another view of Trinity was experienced by Philip F. Belcher who is now alternate division leader of "D" Division at Los Alamos Scientific Laboratory.

At that time he was Lt. Belcher with Army Intelligence assigned to the Manhattan Engineering District.

A couple of days before Trinity test Lt. Belcher had flown to San Francisco. He was the sole passenger in the back of the plane and the cargo was the atomic bomb which later was dropped on Hiroshima.

Lt. Belcher stayed in San Francisco long enough to see the bomb put aboard the USS Indianapolis, a cruiser which delivered the weapon to its Pacific island destination.

"As soon as I returned to Los Alamos," he relates, "I went down to Trinity. After a few hours there we started back to Albuquerque to report in to the Hilton Hotel where Army Intelligence had an office. This was the night of July 15.

"On our way out of Trinity we came upon a civilian contractor who was trying to retrieve a bulldozer which had slid into the ditch of a remote desert road. We got him out of there in a hurry for we knew what was coming in the early morning hours."

Philip Belcher tells the story of the tense wait while peering out of the Hilton Hotel window.

"The bomb was to be detonated at 4 a.m., but that time came and nothing happened. We wondered if the test failed, then we received word that the shot time had been reset for 5 a.m.

"Again we waited at 5 a.m. We saw a flash in the southern skies and we were disappointed. Was this all an atomic bomb would do? Then we heard that again the shot had been postponed and we knew what we had seen was lightning.

"At 5:30 there was another flash —a tremendous flare of light in the southern skies. This was it, the wait was over. This time we were not disappointed. We knew that the first atomic bomb had been exploded.

"I wondered if anyone was still alive at Trinity."

Trinity Revisited

Leo "Jerry" Jercinovic and Louis F. Jacot saw the first atomic bomb explode at Trinity Site in New Mexico 10 years ago tomorrow. Both men were members of the Special Engineering Detachment of the U. S. Army which was attached to the Manhattan Engineering District.

Recently these Sandia Corporation employees returned to that historic site. To get to Trinity there was a four-hour ride southward from Albuquerque.

They were accompanied by Sandia Corporation Photographer James F. Tamer, also a veteran of the Special Engineering Detachment.

After 10 years, Trinity Site, which is now a portion of the Army's White Sands Proving Ground, was still fresh in their memories. They easily found their way from one familiar location to another—places where they saw history being made during the hectic days of 1945.

They traveled over improved roads, past gates manned by Military Police, and through a desert land made beautiful by flowering Yucca plants. The remains of the Trinity operation were still to be seen, only slightly changed by the passage of years.

The accompanying photographs were made possible by the cooperation of the Security and Information offices of White Sands Proving Ground and the Military Police now on duty there.

GROUND ZERO—In the center of a broad but shallow crater the two visitors found a stake marking the center of the spot where the atom bomb tower stood. A stump of concrete and steel remains of one leg of the tower is all that is left. Louis F. Jacot, left, and Leo M. Jercinovic are both Sandia Corp. employees.

Trinity Photography by
James S. Tamer—5216

"KEEP OUT"—Surrounding the point of detonation of the first atomic bomb is a steel security fence. Though Trinity Site is far removed from the average curiosity seeker, it is well protected from molestation.

CONTROL POINT—About 10,000 yards south of ground zero at Trinity Louis Jacot and Leo Jercinovic found the bunkers which were the heart of the operation. In the right foreground is the bunker where timing devices triggered the first atomic explosion. Ten years have deteriorated the construction very little.

DREADNOUGHT—Trinity scientists called these instrument bunkers by the name of dreadnought. This one stands a short distance west of ground zero. Jerry Jercinovic, left, and Louis Jacot are looking in the direction of the tower site.

HISTORIC LABORATORY — An old ranch house near Trinity Site became The Laboratory where final work was done on the bomb. Scientists used the room in the front (on reader's right) side of the house for their work on the bomb's gadgetry. The ranch was formerly owned by the McDonald family, relatives of Corry McDonald, manager of the Standards Engineering Department, Sandia Corporation.

REMAINS—Jerry Jercinovic found that the dry desert air had been kind to the long lines of wires which had been used in the Trinity shot. The desert floor is still littered with wires, poles and other reminders of the experiment.

"Success Was Greater Than Most Ambitious Estimates"

Trinity - - - July 16, 1945

The story of the hours before the detonation of the first atomic device was told to the world through a War Department news release. This release was made August 6, 1945, after the A-Bomb had been used successfully against Hiroshima and Nagasaki.

That 10-year-old news article is reprinted here in full. After a decade it remains a masterful report of the most significant event of our age.

Mankind's successful transition to a new age, the Atomic Age, was ushered in July 16, 1945, before the eyes of a tense group of renowned scientists and military men gathered in the desertlands of New Mexico to witness the first end results of their $2,000,000,000 effort. Here in a remote section of the Alamogordo Air Base 120 miles southeast of Albuquerque the first man-made atomic explosion, the outstanding achievement of nuclear science, was achieved at 5:30 a.m. of that day. Darkening heavens, pouring forth rain and lightning immediately up to the zero hour, heightened the drama.

Mounted on a steel tower, a revolutionary weapon destined to change war as we know it, or which may even be the instrumentality to end all wars, was set off with an impact which signalized man's entrance into a new physical world. Success was greater than the most ambitious estimates. A small amount of matter, the product of a chain of huge specially constructed industrial plants, was made to release the energy of the universe locked up within the atom from the beginning of time. A fabulous achievement had been reached. Speculative theory, barely established in pre-war laboratories, had been projected into practicality.

Tension Was Great

This phase of the Atomic Bomb Project, which is headed by Major General Leslie R. Groves, was under the direction of Dr. J. R. Oppenheimer, theoretical physicist of the University of California. He is to be credited with achieving the implementation of atomic energy for military purposes.

Tension before the actual detonation was at a tremendous pitch. Failure was an ever-present possibility. Too great a success, envisioned by some of those present, might have meant an uncontrollable, unusable weapon.

Final assembly of the atomic bomb began on the night of July 12 in an old ranch house. As various component assemblies arrived from distant points, tension among the scientists rose to an increasing pitch. Coolest of all was the man charged with the actual assembly of the vital core, Dr. R. F. Bacher, in normal times a professor at Cornell University.

The entire cost of the project, representing the erection of whole cities and radically new plants spread over many miles of countryside, plus unprecedented experimentation, was represented in the pilot bomb and its parts. Here was the focal point of the venture. No other country in the world had been capable of such an outlay in brains and technical effort.

False Move Fatal

The full significance of these closing moments before the final factual test was not lost on these men of science. They fully knew their position as pioneers into another Age. They also knew that one false move would blast them and their entire effort into eternity. Before the assembly started a receipt for the vital matter was signed by Brigadier General Thomas F. Farrell, General Groves' deputy. This signalized the formal transfer of the irreplaceable material from the scientists to the Army.

During final preliminary assembly, a bad few minutes developed when the assembly of an important section of the bomb was delayed. The entire unit was machine-tooled to the finest measurement. The insertion was partially completed when it apparently wedged tightly and would go no farther. Dr. Bacher, however, was undismayed and reassured the group that time would solve the problem. In three minutes, Dr. Bacher's statement was verified and basic assembly was completed without further incident.

Specialty teams, comprised of the top men on specific phases of science, all of which were bound up in the whole, took over their specialized parts of the assembly. In each group was centralized months and even years of channelized endeavor.

On Saturday, July 14, the unit which was to determine the success or failure of the entire project was elevated to the top of the steel tower. All that day and the next, the job of preparation went on. In addition to the apparatus necessary to cause the detonation, complete instrumentation to determine the "pulse beat" and all reactions of the bomb was rigged on the tower.

Ominous Weather

The ominous weather which had dogged the assembly of the bomb had a very sobering effect on the assembled experts whose work was accomplished amid lightning flashes and peals of thunder. The weather, unusual and upsetting, blocked out aerial observation of the test. It even held up the actual explosion scheduled at 4 a.m. for an hour and a half. For many months the approximate date and time had been set and had been one of the high level secrets of the best kept secret of the entire war.

Nearest observation point was set up 10,000 yards south of the tower where in a timber and earth shelter the controls for the test were located. At a point 17,000 yards from the tower at a point which would give the best observation the key figures in the atomic bomb project took their posts. These included General Groves, Dr. Vannevar Bush, head of the Office of Scientific Research and Development, and Dr. James B. Conant, president of Harvard University.

Actual detonation was in charge of Dr. K. T. Bainbridge of Massachusetts Institute of Technology. He and Lieutenant Bush, in charge of the Military Police Detachment, were the last men to inspect the tower with its cosmic bomb.

At three o'clock in the morning the party moved forward to the control station. General Groves and Dr. Oppenheimer consulted with the weathermen. The decision was made to go ahead with the test despite the lack of assurance of favorable weather. The time was set for 5:30 a.m.

Lie Face Down

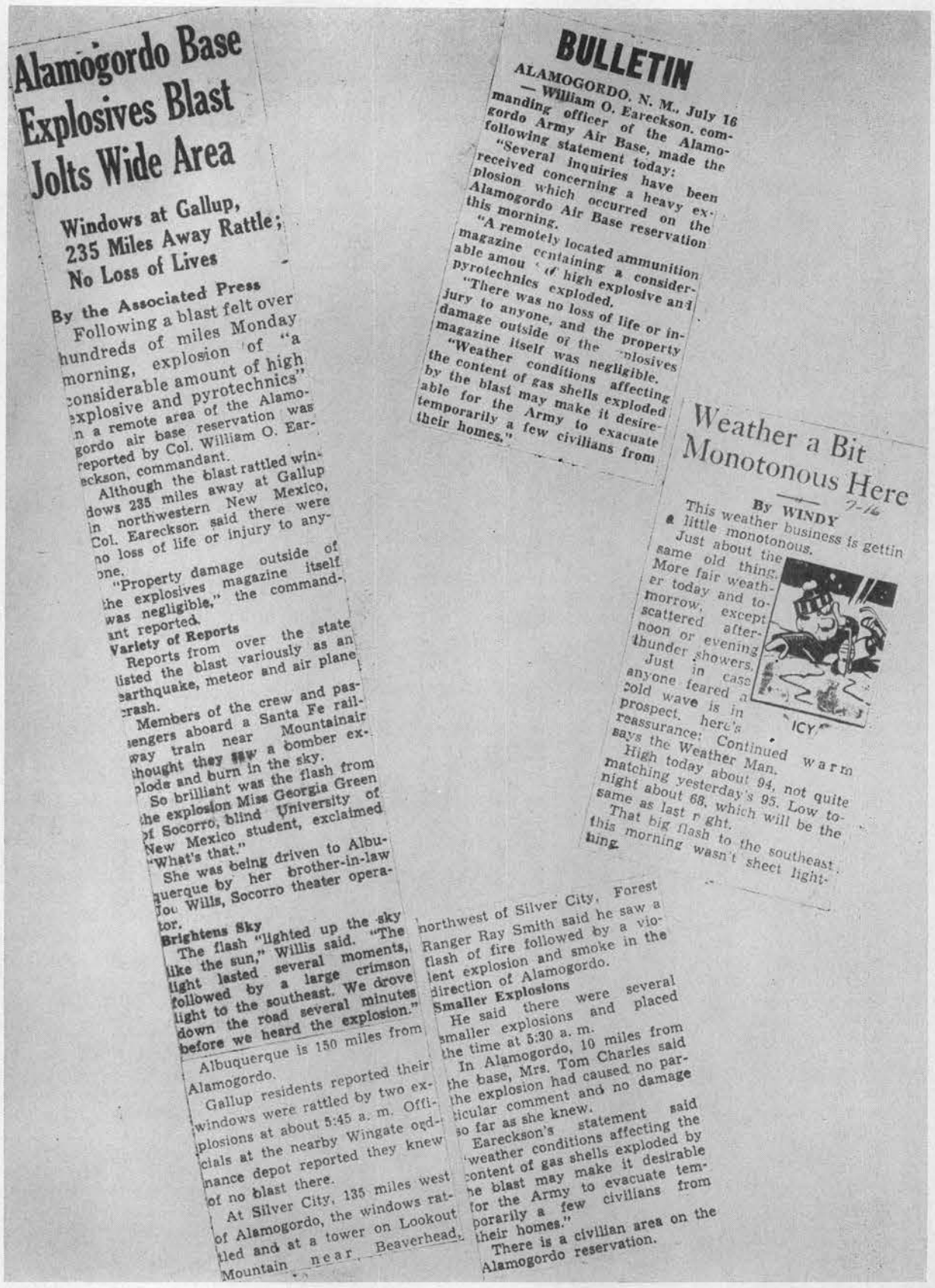
General Groves rejoined Dr. Conant and Dr. Bush and just before the test time, they joined the many scientists gathered at the Base Camp. Here all present were ordered to lie on the ground, face downward, heads away from the blast direction.

Tension reached a tremendous pitch in the control room as the deadline approached. The several observation points in the area were tied in to the control room by radio and with 20 minutes to go, Dr. S. K. Allison of Chicago University took over the radio net and made periodic time announcements.

The time signals, "minus 20 minutes, minus fifteen minutes," and on and on increased the tension to the breaking point as the group in the control room, which included Dr. Oppenheimer and General Farrell, held their breaths, all praying with the intensity of the moment which will live forever with each man who was there. At "minus 45 seconds," a robot mechanism took over and from that point on the whole great complicated mass of intricate mechanism was in operation without human control. Stationed at a reserve switch, however, was a soldier scientist ready to attempt to stop the explosion should the order be issued. The order never came.

At the appointed time, there was a blinding flash lighting up the whole area brighter than the brightest daylight. A mountain range three miles from the observation point stood out in bold relief. Then came a tremendous sustained roar and a heavy pressure wave which knocked down two men outside the control center. Immediately thereafter, a huge multicolored surging cloud boiled to an altitude of over 40,000 feet. Clouds in its path disappeared. Soon the shifting substratosphere winds dispersed the now grey mass.

The test was over, the project a success.



Alamogordo Base Explosives Blast Jolts Wide Area

Windows at Gallup, 235 Miles Away Rattle; No Loss of Lives

By the Associated Press

Following a blast felt over hundreds of miles Monday morning, explosion of "a considerable amount of high explosive and pyrotechnics" in a remote area of the Alamogordo air base reservation was reported by Col. William O. Eareckson, commandant.

Although the blast rattled windows 235 miles away at Gallup in northwestern New Mexico, Col. Eareckson said there were no loss of life or injury to anyone.

"Property damage outside of the explosives magazine itself was negligible," the command-ant reported.

Variety of Reports

Reports from over the state listed the blast variously as an earthquake, meteor and air plane crash.

Members of the crew and passengers aboard a Santa Fe railway train near Mountainair thought they saw a bomber explode and burn in the sky.

So brilliant was the flash from the explosion Miss Georgia Green of Socorro, blind University of New Mexico student, exclaimed "What's that."

She was being driven to Albuquerque by her brother-in-law Joe Wills, Socorro theater operator.

Brightens Sky

The flash "lighted up the sky like the sun," Willis said. "The light lasted several moments, followed by a large crimson light to the southeast. We drove down the road several minutes before we heard the explosion."

Albuquerque is 150 miles from Alamogordo.

Gallup residents reported their windows were rattled by two explosions at about 5:45 a. m. Officials at the nearby Wingate ordnance depot reported they knew of no blast there.

At Silver City, 135 miles west of Alamogordo, the windows rattled and at a tower on Lookout Mountain near Beaverhead, northwest of Silver City, Forest Ranger Ray Smith said he saw a flash of fire followed by a violent explosion and smoke in the direction of Alamogordo.

Smaller Explosions

He said there were several smaller explosions and placed the time at 5:30 a. m.

In Alamogordo, 10 miles from the base, Mrs. Tom Charles said the explosion had caused no particular comment and no damage so far as she knew.

Eareckson's statement said "weather conditions affecting the content of gas shells exploded by the blast may make it desirable for the Army to evacuate temporarily a few civilians from their homes."

There is a civilian area on the Alamogordo reservation.

BULLETIN

ALAMOGORDO, N. M., July 16 — William O. Eareckson, commanding officer of the Alamogordo Army Air Base, made the following statement today:

"Several inquiries have been received concerning a heavy explosion which occurred on the Alamogordo Air Base reservation this morning.

"A remotely located ammunition magazine containing a considerable amou[nt] of high explosive and pyrotechnics exploded.

"There was no loss of life or injury to anyone, and the property damage outside of the explosives magazine itself was negligible.

"Weather conditions affecting the content of gas shells exploded by the blast may make it desirable for the Army to exacuate temporarily a few civilians from their homes."

Weather a Bit Monotonous Here

7-16

By WINDY

This weather business is gettin a little monotonous.

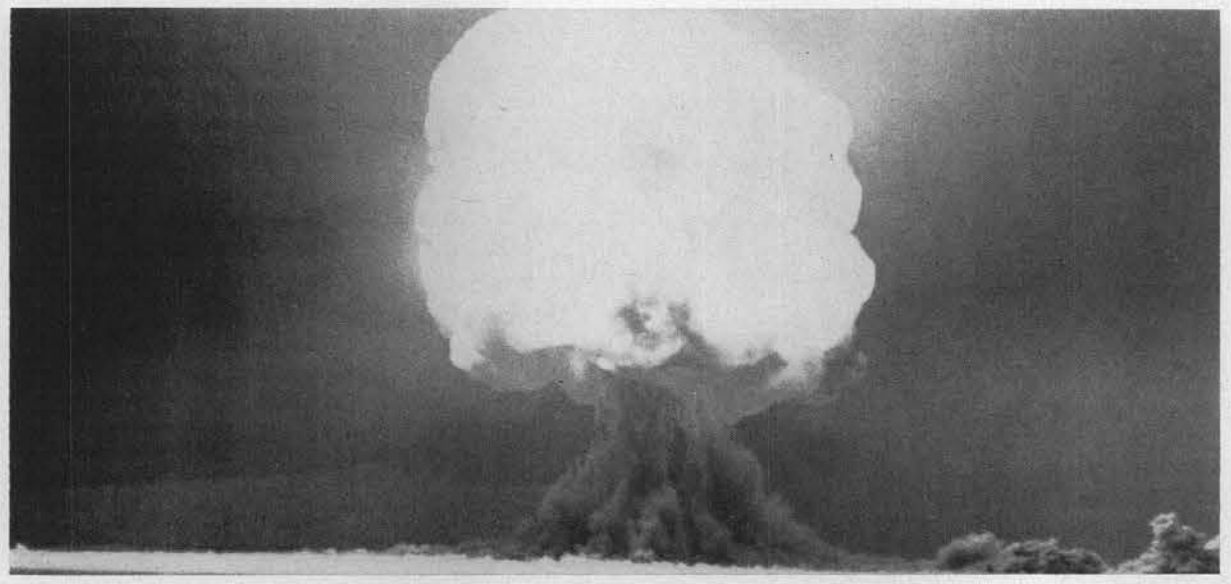
Just about the same old thing. More fair weather today and tomorrow, except scattered afternoon or evening thunder showers.

Just in case anyone feared a cold wave is in prospect, here's reassurance: Continued warm says the Weather Man.

High today about 94, not quite matching yesterday's 95. Low tonight about 68, which will be the same as last night.

That big flash to the southeast this morning wasn't sheet lightning.

NEWSPAPERS didn't let the brilliant explosion on Alamogordo Air Base go unnoticed. The above articles from Albuquerque papers of July 16, 1945, indicate a passing interest in an explosion near Alamogordo reported to be an ammunition dump mishap. The utmost secrecy was maintained by the Department of Defense about Trinity and the long chain of events which led up to it through the years before and during the war.



TRINITY FIREBALL is shown here 15 seconds after the detonation. A few days later, this explosion was repeated over Hiroshima, then Nagasaki, and the war was over. World peace returned after six long years.

Trinity Eyewitnesses Tell Their Stories

Leo M. Jercinovic—1942

"-- a terribly fearsome thing --"

I was just a small, very small, part of the big picture at the Trinity shot. What I saw will never be forgotten.

While stationed at Los Alamos I was in the armed forces as a member of a special engineering detachment. We worked side by side with the civilians at the Laboratory.

In May of 1945 I made my first trip to Trinity Site. We were doing an

Leo M. Jercinovic
Supervisor of Model Material Division

experiment in calibration for the big shot which would come later. The members of the group loaded TNT on a wooden tower. Using a truck, cable, pulley, hoist and plain muscle we boosted the HE in 50-pound boxes onto the tower. When it was set off, instruments recorded certain blast information needed for the upcoming big shot.

My second trip to Trinity was in June when we made a complete dry run for the "main go." The practice exercise took about a week and included taking a dummy unit by truck from Los Alamos, through Espanola, Santa Fe, Albuquerque, Socorro and San Antonio to the site.

We raised the dummy unit into the tower and went through all preparations which would be followed when the live unit was brought down.

The third trip was the real thing. We went in two well escorted military prime movers. In one truck was the bomb, in the other was all the equipment necessary to prepare it for the nuclear material which would later be installed by Los Alamos scientists.

It wasn't a fast trip; we drove about 35 miles an hour but there were no unnecessary delays.

When we left Los Alamos, the unit was mechanically assembled. Under the tower at Trinity we disassembled it to allow the nuclear material to be put in, then we put the gadget back together and it was hoisted into the tower.

Before shot time the assembly crew went to an observation point some miles to the northwest. We were up high, above the top of the tower, and could see the entire valley below.

I got down prone on the ground, looked through glass from welder's goggles and waited for the blast.

It came. The bright light and heat of the flash were terrific and I dropped my head so that my arm shielded my eyes, then in a moment I looked up to see the fireball boiling upward.

Fright was the immediate sensation I had. Then wonder, amazement and awe. It was a terribly fearsome thing to look at. It was of much greater intensity than I had expected.

From all I could see the whole operation went off like clockwork. It was a miracle of organization remarkably free from mishaps and delays.

Robert W. Henderson—1200

"-- sensation of satisfaction --"

My responsibilities for the Trinity test started in March, 1944, when I came to Los Alamos. I had certain engineering and construction responsibilities at the test facilities.

My preliminary work with Trinity came to an end when the nuclear device was raised through the floor of the cab on the top of the 100-foot tower.

But to show more of the picture we have to go back three weeks before July 16—when I arrived at Trinity Site and worked with the construction of the tower and other facilities. The country was desolate, barren, and ideal for the test.

We were housed in salvaged CCC barracks which had been moved in for the job. There were no windows

Robert W. Henderson
Sandia Corporation Director of Engineering I

left and one morning I awoke to see a big black crow perched on the foot of a fellow's bed pulling at the covers.

Working hours were from daylight to dark, but usually we started earlier and ended later.

It was about 10 a.m. July 14 when we hoisted the device into the tower. It was fully armed and ready to go. Four of us who were connected with engineering were in the tower to replace the floor after the gadget was brought into the cab.

When the unit was seated in place we left. The final instrumentation was being prepared by other project workers from the Hill.

I knew there would be some time before the test and I didn't feel like just standing around, so some of us took off for Mockingbird Gap where we investigated a few old mines.

We were back at the observation point well before the shot. Every person present at the site was accounted for by name. We were about seven miles from ground zero.

One minute before the shot there was a detonation of TNT to test sound wave velocity. When that went off I moved about 100 yards away from the others, sat down headed toward zero point, leaned over and buried my face in my hands.

I didn't expect it to happen, but when the first terrible intense flash of light announced the detonation I could see down through the spaces between my fingers. The green desert growth appeared bleached white in the flash.

My sensation was one of intense excitement for we were experiencing something that man had never seen before. It was an amazing phenomenon as the fireball rolled skyward and then the roar of the detonation rumbled off the mountains which formed a sort of natural bowl for the area.

The feeling of awe and fear gave way to a sensation of satisfaction for the long period of hard work had shown that the project behind Trinity was a success.

Since that time I have seen all the "shots" at Operations Crossroads, Sandstone, Greenhouse, and some of the Nevada tests, but I'll never forget my first atomic detonation at Trinity.

Arthur B. Machen—1700

"-- a luminous purple halo --"

Date: 16 July 1945
Time: H plus 4
Place: 30,000 yds. west of ground zero, Trinity

At the time of the shot I was lying prone and looking through a welder's lens. There appeared abruptly a brilliant pin-point of light at the source. This grew in size and extended itself vertically upward like a jet, and then mushroomed out at the top.

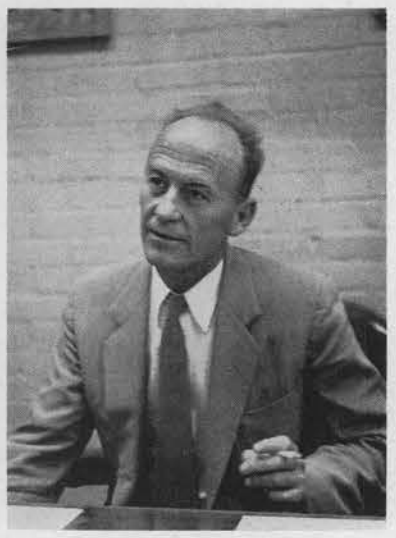
I believe the point at the source remained brilliant to the eye and was apparently several times brighter than the sun when viewed through the same lens. I think this is true even when allowance is made for the super-sensitivity of the eye owing to its lack of exposure to bright light for a period of from ½ to 1 second.

After what I estimated to be three seconds (although this is very uncertain) the illumination had diminished enough so I considered it appropriate to remove the welder's lens.

I then observed a great ball of fire probably one or two thousand feet above the ground. This ball was approximately spherical, was of a reddish-yellow color and appeared to be boiling violently. At the same time I noted the brightness of the landscape which was illuminated to about the extent observed immediately before sunrise.

The ball of fire continued to rise, getting fainter, redder and larger. In a few seconds it changed into a gray cloud surrounded by a strikingly luminous purple halo. This halo lasted a few seconds and disappeared gradually. The cloud just referred to merged into a column of dust and smoke that was rising and continued to rise vertically at a high rate of speed, finally becoming topped with a white portion that looked like ordinary cloud, or steam.

Presently it was noted that the lower 2/3 of the column was drifting to the east whereas the upper portion remained more or less vertically above the point of explosion. My estimate of the height was 20 or 30 thousand feet.



Arthur B. Machen
Director of Military Liaison Service

It was noted shortly after the illumination disappeared that the ground for more than a mile, and possibly 2 or 3 miles on either side of the explosion was covered with a low dust cloud, thicker near the center and thinning toward the edges.

This cloud persisted for a long time and was still visible when we left the site of observation some 25 minutes after the explosion.

No earth shock was felt though I was expecting it. The sound which arrived about one minute and 40 seconds after the explosion was short, resonant and loud, but not of a degree of sharpness to hurt the ears. A few seconds after the sound a continuous rumbling was heard, caused by the reflection of the sound from the distant mountains.

Louis F. Jacot—2463

"-- population evacuation planned --"

Los Alamos was home to me for several years. I first went there in March, 1944, as a staff sergeant in a special engineering detachment.

My work was as a patent illustrator and I was under Major Ralph Carlisle Smith who was legal advisor and patent advisor at Los Alamos.

When time came for Trinity I was assigned to a so-called evacuation outfit of three officers and 150 men. It was planned that if after the shot the radiation fallout level became too high and threatened populated

Louis F. Jacot
Technical Illustrator, Technical Art Division

areas we would clear towns and ranches of inhabitants.

The communities of Claunch and Bingham were possibly in the path of the fallout and maybe some ranches too.

If there was a quick change in wind the towns of San Antonio or Socorro could have been in the path.

The security detachment left Los Alamos one midnight and drove in a 30-vehicle convoy at 25 miles an hour. We arrived in Albuquerque at 5 a.m. and had a breakfast of C rations, and from there we traveled on to the test site.

We first bivouacked near Bingham and later near Carthage. Before the shot we traced all the roads and trails in the area. There were no good maps of the area available so we worked all night finishing maps by hand.

After the shot we were ready, but everything went according to plan and no evacuation was necessary.

One incident impressed me at the time and today is still as impressive. I didn't see it occur, but it is a fact.

Dr. Enrico Fermi, one of the great physicists who had been working on the experiments, was present for the shot. He was with a group of scientists some miles from ground zero, lying on the ground, feet toward the blast.

When the brilliant flash told of the detonation he got to his feet, slipped his hand in his coat pocket and started counting. In a moment he pulled his hand from his pocket carrying a fistfull of paper scraps. When his counting reached a certain number he dropped the bits of paper and at that precise instant the blast wave struck the spot where he was standing.

The blast carried his scraps of paper in its wake and they were strewn along the desert floor for several yards. Dr. Fermi paced off the distance the paper covered, did some quick mental calculations and announced that the yield of the shot was "about 20,000." This meant the detonation was equivalent to 20,000 tons of TNT.

Delicate instruments in bunkers later proved he was right.

The Inquiring Reporter Asks—

Where were you July 16, 1945?

VIRGIL A. HARRIS, 5216: I was working in an engineering group at Los Alamos; some of us knew about H-hour, so just before 4 o'clock that morning I got up and sat in front of a window to see the flash. When it didn't show at 4 sharp, I figured something had gone wrong and that there'd been a postponement. I went back to bed and the device was detonated a short time later. By the way, we weren't to discuss the project—my kid brother was my next-door neighbor, but we had different badges and of course I couldn't talk over anything with him. Even working at Los Alamos, he was surprised to hear about "Trinity" when the story finally was announced.

P. E. STEPHENS, AEC: At that period I was on active duty with the U. S. Navy and stationed in the Los Angeles area. I remember the news stories that were published around the middle of July. The conjecture at that time was that an "ammunition dump" had exploded in the desert north of El Paso. Lacking any substantiating evidence to the contrary, we believed it to have been a "dump". When the actual news broke the following month, we felt that this tremendous new weapon was the turning point of the war and would hasten the defeat of Japan.

GENE M. NIELSEN, 4113: In July and August of 1945 I was with a field hospital unit in Calcutta, India, waiting to go into China via the Ledo and Burma Road. The monsoons had rained out the roads so we were just waiting for repairs. I first heard about the A-Bomb through a newscast—it said we had dropped such a "something" on Japan and that the enemy was asking for peace. Our camp held quite a celebration hoping that the war would be over soon and that we'd be heading stateside. Although I didn't know anything about the "atom", I was sure after hearing about the new weapon, that "now anything can happen."

S. J. "DON" EMBRY, 2451: In July of 1945 I was stationed at Myitkyina base on the Salween River in Burma as a pilot, flying the "hump" in the China - Burma - India theater. The first I heard about the A-Bomb was when I was coming home . . . we were two days out of Guam aboard the U.S.S. Gen. H. B. Freeman when the news of the Japan bombing reached us. It was our first inkling of atomic power, and frankly at the time I wasn't much impressed. We were so glad to be going home after two years in the CBI that the news didn't faze us much.

CORONADO CLUB members of the board of directors are L to R, rear row: A. C. Hull, Ray Schultz, Robert Knudson, H. B. Catt, Charles O'Keefe, John Taylor (club manager). Seated, L to R: Charles Kaspar, Martha Howard, Joe Heaston, and Bill Bramlett. Out of town and not pictured were Milt Fellows, Eugene W. Peirce, and Bob Culley. Hull and Peirce are members appointed by the AEC and Sandia Corp.

Coronado Club President Announces Committee Appointments for New Year

Robert Knudson, 3164, newly-elected president of the Coronado Club, announced his committee appointments at a meeting July 1 when he and the new board assumed office.

Named to head the recreation group is Charlie Kaspar, 3153, who filled the job during the preceding year. Bob Culley, 5213, will handle the bingo operations. Martha Howard, 1641, is in charge of entertainment.

Former club president Charlie O'Keefe, 1932, heads the bar committee, and Ray Schultz, 1320, will ramrod all club membership activity.

Joe Heaston, 5212, new vice-president, will handle public relations and publicity. Decorations and furnishings work will be directed by Bill Bramlett, 2452.

Milt Fellows, 3151, is the newly-elected secretary and H. B. Catt, 1920, was re-elected treasurer.

Meeting with the old and new boards at a luncheon in the club's private dining room were Max H. Howarth, Vice President and General Manager of Sandia Corporation; A. E. Uehlinger, Sandia Contract Administrator, AEC, and Ray B. Powell, superintendent of Personnel and Public Relations for the Corporation.

Corporation representative on the Coronado Club board is Eugene W. Peirce, manager of the Employee Services, Training and Public Relations department. A. C. Hull is the AEC representative.

Selective Service Act Changes Affect Sandia Employees

The recent four-year extension of the Selective Service Act contains two new provisions of interest to some Sandians who were required to register under the Act.

One change in the law exempts from further liability those men who had at least six months active service (previously one year was the minimum) and who were released at the convenience of the government.

Another provision of the new law sets 28 as the age level for reclassification of those registrants who join the National Guard prior to reaching the age of 18½ years. Previously they remained liable for call until the age of 35.

Further information may be received from the Public Relations Division, 3125, ext. 21253.

NAMED TO HEAD Sandia Corporation's Community Chest drive this year is Luther J. Heilman, 2400, Superintendent of Plant Services. The Community Chest and the local American Red Cross Chapter recently endorsed a single-fund-raising campaign. It will be known as the Community Chest-Red Cross United Fund.

Judges Preparing to Submit Designs for Sandia Service Pin

Entries in the Sandia Corporation service pin design contest are being processed by a committee of judges and final selection by Sandia employees will be made soon.

The committee is choosing several designs from the 204 separate entries and is having them prepared in finished form by artists. These will be reproduced in the *Sandia Lab News* along with a ballot by which each employee may vote for the design of his choice.

The design selected will be used on the pin or lapel button to be presented to Sandia Corporation employees on five-year anniversaries of their employment.

Congratulations

BORN TO:

Mr. and Mrs. Frank H. Grubbs, 4113, a son, Kevin Eugene, June 29.

Mr. and Mrs. John Farner, 2151, a son, Calvin James, July 1.

Mr. and Mrs. Lowell E. McKim, 4152, a daughter, Sharon Lee, July 1.

Mr. and Mrs. Robert Guerin, 1921, a son, Gregory Edward, July 1.

Mr. and Mrs. Frank Mehok, 1641, a daughter, Kelly Frances, June 26.

Mr. and Mrs. Robert Evans, 1643, a son, Robert Edward, June 24.

Mr. and Mrs. J. C. Zimmerman, 1326, a daughter, Laura Marie, July 5.

Mr. and Mrs. Robert Ryan, 5241, twins, Steven Robert and Elaine Patricia, July 8.

State Residents Must Have '55 New Mexico Automobile Licenses

The Office of the Bureau of Revenue, Motor Vehicle Dept., State of New Mexico, has pointed out that the law requires all "non-resident owners of out-of-state vehicles operated within this state . . . who accept employment, or engage in any trade, profession or occupation shall register such vehicle and pay the same fees as is required with reference to like vehicles owned by residents of the state."

The law includes housetrailer owners in similar situations.

Licenses which are purchased after the first half of the year are prorated accordingly.

State patrolmen have been alerted to check out-of-state licenses for persons who are employed within New Mexico.

Heads Lens Club

Named to head the Enchanted Lens camera club at a recent gathering is LeRoy Hassebroek, 5611.

The club roster includes 80 persons, about a fourth of whom are Sandia Corporation employees. Meetings are held every other Thursday.

Caravan Club Meets At Bandelier Saturday

Members of the Amateur Radio Caravan Club of New Mexico, their wives and guests will picnic tomorrow at Bandelier National Monument near Los Alamos.

The caravan will leave the junction of U. S. Highway 85 and its alternate north of Albuquerque at 8 a.m. Members are asked to bring lunches. The Caravan Club will serve cold drinks at the Bandelier picnic grounds.

Next regular meeting of the Club will be 7 p.m. July 27 at Lovelace Clinic, when plans for the organization of an Emergency Communications Unit will be discussed.

Sympathy

To Candelaria Martinez, 2462, whose father-in-law died June 24 in Raton, N. M.

To Virginia Haley, 4135, whose grandmother died in San Angelo, Texas.

To Mr. and Mrs. Grover Tuck, 5312, for the death of their infant son, Merlyn Val.

around the departments

From 2611: **Dorothy Parslow** has returned from an enjoyable trip to Mexico City and Aculpulco; **Jack Cordaro** and his family are vacationing in Arizona and California; **Dick Ballard** fished the holiday weekend at Brazos; **Louise Major** spent the Fourth weekend with relatives in Taos; **Harold Hanna** and **Jo Hanna,** 6021, have moved into their new home at 2721 Vermont NE.

Mr. and **Mrs. Claude LeFever,** 5615, joined **Mr.** and **Mrs. Roy Hassebroek,** 5611, at Willow Creek Ranch recently where they engaged a guide and pack train and toured 20 miles into the Gila Wilderness area. They enjoyed the fishing and swimming during the eight-day junket, but were called upon to help fight several forest fires in the vicinity of their camp.

Dorcas Crosby, 4135, is spending a vacation with relatives and friends in Lockport, Ill., and points in Michigan and Ohio. **Ella Lucero** enjoyed a brief summer holiday at home to visit with relatives.

Jayne Van Lenten is back from an extensive vacation to Oklahoma City, St. Louis, Milwaukee, Chicago, Bristol, Pa., and Red Bank, N. J., along with a few days' visit in the nation's capitol.

Frank Castillo, 2561, is welcomed back to work after a lengthy illness.

E. F. Cox, 5110, and family are vacationing in California, Utah and Colorado. They will attend the D'Oyly Carte opera presentation of "HMS Pinafore" and "Trial by Jury" at Central City, Colo. Also vacationing in Colorado and northern New Mexico this month is **Muriel Dennison,** 5111.

Their friends at the Laboratory are wishing a fast recovery for **Betty Bentley,** 1924, who suffered a back injury in an automobile accident July 4, and for **David Smith,** 1921, who injured a leg while diving recently.

Elvina Strance, 5110, is entertaining an aunt who is visiting from Chicago. They plan to visit Taos, Red River, and Santa Fe, among points of interest in the state.

Although he was out of town when the announcement was made, **Kelly S. Davis,** 2553, was the lucky second-place winner in the Army Emergency Relief Drive recently. Kelly had his choice of a television set or a food freezer.

John and **Irene Berger,** 2452 and 2561, took a trip to Iowa where they entered their son, Dan, in chiropractic college.

Tonight at 8:30 in Central Methodist Church will be the nuptials for AEC's **Joe Knight** and Lois Johnston of Albuquerque.

Stan McCammon, 2561, and his family chose California for their vacation headquarters this year. They were guests of Mrs. McCammon's sister.

Dorothy Matlack, 1610, is home from an interesting vacation in the East where she visited in New York and New Jersey.

The **Jim Feslers,** 4113, have returned from a vacation in St. Petersburg, Florida.

J. R. Sublett, 2521, has returned from a short vacation during which he chairmaned the Sublett family reunion at Red Canyon Camp Grounds near Manzano, N. M., July 9 and 10. Jack says about 100 persons from several states attended the get-together.

Vacationers from 2522: **Dave Gomez** and his family fished in cool Colorado; **Carl Gregory** enjoyed a successful trek along the "trout trail" in Arizona and Colorado; **Mel Otero's** back from a fishing jaunt to northern New Mexico.

Claire Leupold, 2524, vacationed in Colorado Springs; **Tex Vandi,** 2521, and his family visited relatives in Iowa; **Russ Freyermuth,** 2524, and his family traveled to Meadville, Pa., where they vacationed with relatives; **Ed Domme,** 2523, and his family went to Topeka, Kans. **Elmer Irving,** 2522, spent the Fourth weekend at Durango, Colo., with friends.

August 6 is the wedding date chosen by Silvia Sanchez of Belen and 2461's **Gilbert Tabet.** The ceremony will be in Our Lady of Belen church and the couple will honeymoon in Mexico City and Acupulco.

From 2231: **Jim Chavez** moved recently into the home which has been his "do-it-yourself" project this summer; **Alvie Barrett** and family vacationed on the Gulf of Mexico where they enjoyed fishing and swimming; **Hubert Franklin** visited a friend at Lowry Field, Denver, Colo., last week.

Co-workers in 2462 welcomed **Ina Alexander** back from an extended sick leave; **Helen Allen,** 2462, and her husband motored to El Paso for the holiday weekend; **Erma Campbell,** 2462, is enjoying a vacation to entertain her parents and two sisters who are visiting from Pennsylvania.

Ruth and **Ralph Larsen,** 2461 and 2152, are vacationing in Chicago. Ralph recently was awarded a silver trophy as the highest scoring civilian in the regional pistol championships at Phoenix, Ariz.

Pennsylvania is the vacation destination this summer for **Betty Baros,** and **Herman Baros,** 2461 and 5243.

According to **J. W. "Pinky" Pinkerton,** 2561, his vacation had some "low points." Pinky and his wife and daughter, **Peggy,** 1925, took a trip to Alabama and Tennessee, but when they visited the local restaurants Pinky watched the fine food go by—he's on a strict diet.

From 5131: **Rudy Frantik** and his family enjoyed a tour of old copper mines and ghost towns in the Silver City area last weekend; **Ralph Calvert** and his family are camping out this week in the Gunnison National Forest near Tincup, Colo.; **Doris Ehret** has returned from a visit with relatives in Grinnell, Iowa.

Mary F. Barnett, 4152, and her husband have returned from a visit with their young son who is in the Home for Asthmatic Children in Denver. They also visited in Dayton, Ohio.

Ted Spack, 4151, vacationed in Denver; **Leon Luke,** 4151, spent several days in Taos, and home vacations were enjoyed by 4151's **John E. Anderson** and **Frank Martin.**

The **Chuck Martins,** 1325, are vacationing in national parks and in Centralia, Wash., with relatives. Among the parks on their schedule are Mesa Verde, The Arches, Bryce, Zion, and the Grand Canyon.

Louie Hilderbrand, 1932, and his wife visited relatives and friends in Missouri and Kansas and took in a major league ball game while on vacation. **Kip Blossom,** 1932, is vacationing in Yellowstone Park and in Salt Lake City with his parents who are visiting the west from Indiana.

A newcomer in the home of Mr. and Mrs. **Carlos Baca,** 1932, is two-and-a-half year old Pamela Charlotte.

A fall wedding is planned by Miss Ernestine Barton Cox of Warrenton, Va., and **Ensign John C. Peak,** USNR, who is on leave from Org. 1241. Ensign Peak, a Princeton graduate, is now stationed at the Naval Mine Depot in Yorktown, Va.

Gilbert Torres, on military leave from 2462, is en route to Europe. S/Sgt. Torres' wife and son, J. R., will join him there later this summer.

PROMOTIONS

G. WILLIAM ROLLOSSON to supervisor of Full Scale Test Division III, 5233, in the Full-Scale Test Department.

Bill has worked in that department since joining the Laboratory four years ago. He came here after completing work for his Ph.D in physics at UNM, having earned his M.S. degree in 1947 at Massachusetts Institute of Technology and his B.S. degree at Southwestern Louisiana Institute, Lafayette, La., in 1945. He was an assistant professor at Southwestern, where he taught physics for a year.

While an undergraduate he was named to the Blue Key honorary fraternity and to Sigma Psi, honorary scientific society.

Bill, a native of Louisiana, is a member of the American Physical Society.

JAMES A. WILLIAMS to supervisor of electronics section 1344-1 in the Electronic Test Equipment Department.

Since he came to Sandia in 1949 Jim has been in electronic and pressure measuring work.

The previous seven years he was employed by the Naval Ordnance Laboratory in White Oaks, Md., in electronic design and crystalography. Before that he worked as a research assistant for National Geophysical Company in Dallas, Tex.

Jim attended Pasadena Junior College. Born in Little Rock, Ark., and reared in Los Angeles, he has also studied at the University of Maryland, George Washington University, and UNM and is currently taking courses at the College of St. Joseph.

WILLIS E. JOHNSTON, JR., to supervisor of Section 1334-1 in Engineering X Department.

"Bill" has been with Sandia for seven years in the electrical engineering phase. The previous two years he taught at UNM where he had earned his B.S. degree in electrical engineering.

While in service with the Signal Corps, Bill was a radar officer. He attended special training schools at Harvard University and Massachusetts Institute of Technology.

Bill worked for the Rural Electrification Administration before the war in the St. Louis area and in Washington, D. C. A southwesterner, he attended Amarillo Junior College before transferring to UNM. While in college Bill was elected to Kappa Mu Epsilon, honorary society.

FRED B. PHILIPP to Technical Administrative Service Division 1918, TDSR for director of materials and standards engineering, 1600.

Fred has been an administrative assistant since joining the Laboratory in June, 1952.

Before moving to the southwest Fred headed his own general insurance brokerage firm in New York City and Newark, N. J. His 18 years in the insurance business was preceded by eight years association with Bankers Trust Co. in New York.

A native of Middletown, N. J., Fred attended Harvard University.

NORMAN W. BERG to supervisor of the Mechanical Engineering section, 1344-2.

Norman came to the Corporation in March, 1953, following a second tour of duty with the U. S. Air Force. He has since worked in design engineering at the Laboratory.

A native of New Richmond, Wis., he spent five years in the Air Force during World War II. After leaving service he entered Texas Technological College where he earned his B.S. degree in mechanical engineering. Before returning to military duty he was employed as manager of Compress Supply Co., Lubbock, Texas.

JOHN J. MARRON to supervisor of Section 1242-2 in Engineering Department C.

Since coming to the Laboratory in September, 1952, "Jack" has worked in component and systems design.

He was graduated that year from the University of California, Berkeley, Calif., with a B. S. degree in electrical engineering. While in school Jack was elected to Sigma Psi, Eta Kappa Nu and Tau Beta Pi, honorary engineering societies.

Born in Butte, Mont., but reared in southern California, Jack worked as a journeyman electrician at the U. S. Naval Drydocks in Long Beach before entering service. He spent 3½ years in the U. S. Navy as an electronic technician.

VINCENT G. REDMOND to supervisor of Section 1214-1 in Engineering Department A.

Vince has worked in research and development since coming to the Laboratory four years ago. The previous six years he taught mechanical engineering at Clarkson College of Technology in Potsdam, N. Y., where he had received his B.S. degree in mechanical engineering.

During World War II he served in the Air Force. Vince formerly worked at Northrup Aircraft Corp., Globe Aircraft Corp., American Aviation Corp., and Douglas Aircraft Corp. He is a native of Ogdensburg, N. Y.

DELFRED M. OLSON to supervisor of Section A, 1242-1, in Engineering Department C.

"Del" joined Sandia Corporation two and a half years ago and has been assigned to electrical engineering work. He earned his B.S. degree in electrical engineering and his M.S. degree in electrical engineering from the University of Washington at Seattle. While in school he spent a summer with Boeing Aircraft Co. in Seattle.

Del was a member of the following honorary and professional societies while in college: Phi Beta Kappa, Tau Beta Pi, Sigma Psi, Zeta Mu Tau and Pi Mu Epsilon. He served in the student senate and was chairman of the engineering council while at the University. He is a member of the local chapters of the American Institute of Electrical Engineers and the Institute of Radio Engineers.

JAMES M. PHILLIPS, to supervisor of Section 2531-2, Manufacturing Relations Engineering.

Since joining Sandia Corporation four years ago, Jim has held various assignments in manufacturing relations engineering.

Before coming to Albuquerque he earned his B.S. degree in mechanical engineering at the University of Nebraska. Jim is a native of Lincoln, Nebr., and spent 15 months in military duty in the U. S. Army, serving in the infantry and in anti-aircraft artillery units.

LOWELL E. SHARP to supervisor of Materials Section 1942-2 in the Technical Services Department.

Since joining the Corporation in August, 1949, Lowell has worked as a program scheduling coordinator. Prior to accepting employment here he was New Mexico branch manager for a trailer coach company and before that he spent three years in the U. S. Navy as a motor machinist's mate 2/c. Lowell served in the Pacific theater during World War II.

Before the war he worked as a mechanic for the U. S. Engineers in the Panama Canal Zone and at one time he held an automobile dealership in Newton, Kansas. Lowell's home town is Council Grove, Kans.

M. FRENCH STEWART, JR., to supervisor of Technical Administrative Service Division 1919 (TDSR) to the director of Surveillance and Operations, 5600.

"Frenchie" came to Sandia in 1950 as an expediter, later transferring to the General Services Department. He was named supervisor of the Ordering and Local Service Section 1931-1 in December, 1951. He subsequently headed the Scheduling Section 1941-1 in the Technical Services Department.

Before coming to Sandia, Frenchie worked for two and a half years as chief production dispatcher for Lustron Corp., in Columbus, O. Prior to that he was employed five years by Curtiss Wright Co., also in Columbus, as a manager in the expediting offices.

Frenchie also worked for Jeffrey Mfg. Co., Columbus, in production scheduling and expediting. A native of Ohio, he attended the state university there.

JOSEPH E. DAVIDSON to supervisor of Operations Survey Section, 5513-2, in the Quality Assurance Department.

Joe has been in liaison survey assignments since joining the Corporation two and a half years ago.

For 13 years prior to coming here he was employed by the Navy as technical supervisor of the VT fuze range at the Naval Ordnance Test Station, China Lake, Calif., and as chief inspector, Navy Dept., Bureau of Ordnance, for the VT fuze at Cincinnati, Ohio, and Washington, D. C.

A native of Cincinnati, Joe worked for Thomas A. Edison, Inc., at Orange, N. J., as a radio engineer. He attended Palmer College, Albany, Mo., and the University of Kansas and is a member of the local chapter of the American Society for Quality Control.

PHILLIP L. JESSEN to supervisor of Engineering Section 5421-1, of Electronics Development Department.

Phil came to Sandia in October, 1949, and worked as a technician while attending the University of New Mexico. He was graduated from UNM in June, 1951, with a B.S. degree in engineering, and subsequently entered engineering work at Sandia Corporation.

For two and a half years he was an electronic technician in the U. S. Navy, and before entering service was a fire control technician at Mare Island Navy Yard in Vallejo, Calif. He is a native of Silver City, N. M.

BEVERLY W. WASHBURN to supervisor of electronics section 5243-1 in the Test Data Department.

Bev came to Sandia in February, 1952, and since that time has worked on electronics engineering assignments.

A native of New Mexico, he earned his B.S. degree in electrical engineering from UNM and his M.S. degree in electrical engineering at Stanford University. While in college he was elected a member in Sigma Tau.

Before joining Sandia Laboratory Bev worked in research and development for General Electric Co. at Philadelphia, Pa., Fort Wayne, Ind., and Lockland, Ohio. He spent two years in service during World War II as a member of the adjutant general's department in the States and southwest Pacific theater. Bev is a member of the IRE, the AIEE and is a registered engineer in the state of New Mexico.

MILTON E. BAILEY to supervisor of Project Division C II in the Engineering C Department.

Milt joined Sandia Corporation in March, 1952, and has worked in electrical systems design. He was promoted to supervisor of Section 1242-1 in February, 1953.

Before coming here he was employed eight years by Sperry Gyroscope Company and prior to that he worked four years as a project engineer for Eclipse Pioneer Division of Bendix Corp.

He received his B.S. degree in electrical engineering from Norwich University, Northfield, Vt., in 1940.

Home Fires, Wills Subjects of Newest Book Rack Selections

The new booklet rack selection which will go on the stands today is "A Hot Time at Home" outlining major fire hazards to avoid at your house.

What happens when a person fails to leave a will is described in the booklet rack selection for next week. The pamphlet, "Your Will Planning Guide," is not intended as legal advice . . . it cautions that a will should always be drawn by a lawyer.

MIT Alumni Elect Rollosson President

G. William "Bill" Rollosson, 5233, was elected president of the Massachusetts Institute of Technology alumni club at a recent meeting.

Information concerning the club may be obtained from Frederic Alexander, Jr., 339 Washington St. NE.

Recorded Lectures Made Available to Technical Societies

Called "Tapescripts", a new series of nine illustrated tape-recorded lectures on various electronic subjects have been made available to interested technical societies by the Bell Telephone Laboratories of New York.

The "Tapescripts" will be furnished on a loan basis to organizations requesting them. The lectures include slides, with an accompanying recorded voice lecture given by the Bell Telephone staff engineer who originated the project. Time required to present one of the tapescript programs runs from 30 to 50 minutes.

Titles of the lectures in the experimental series are: "Experiments with Linear Prediction in Television," "Statistics of Television Signals," "Efficient Coding," "A Junction Transistor Tetrode for High Frequency Use," "Some Circuit Properties of Junction Transistors," "Ferro-Electric Storage Devices," and "The Bell Solar Battery."

Further information may be obtained from the Public Relations Division, 3125, which has a catalog and instruction manual on the "Tapescripts."

Popular Reprint of Sun Trails Article In Book Racks Again

Owing to popularity of the Sun Trails Magazine reprints of "Sandia Corporation—On the Frontier of Engineering" and "City of Surprises: Albuquerque" additional copies of the pamphlet will be distributed Friday, July 22, through the booklet racks.

Employees who desire extra copies for mailing to relatives and friends may take this opportunity to obtain additional booklets.

George Dickins New Commander of Naval Research Unit Here

George Dickins, 1732, staff engineer attached to the Military Liaison Service Department, has been named the new commanding officer of the U. S. Naval Research Reserve Company 8-7 of Albuquerque.

Lt. Comdr. Dickins' newly appointed staff includes R. E. Butler, 5524, executive officer; Edwin F. Johnson, 1634, security officer, and Bill Richardson, AEC-SFO, personnel officer.

Twenty scientist - engineers are members of the group which is one component of the 2,000-man Naval Reserve Research Group connected with the universities and naval training centers throughout the United States.

5100 Party Saturday

The annual 5100 party will be tomorrow at the Coronado Club with a full program scheduled for members and their guests.

There'll be swimming at 4:30 p.m. and a patio buffet dinner at 7. Dancing to the music of the MBC Trio will start at 9, while an hour's floor show is set to begin at 10.

In charge of ticket sales are Bob Chesnut, Gurdon Miller, and Roy Cole. Tickets will be available at the door and the party is open to other club members. The price, including dinner, is $2.50, while for dancing and entertainment only it is $1 per person.

No job is so important and no service is so urgent that we cannot take time to perform our work safely.

shopping center

CLASSIFIED ADVERTISING

Deadline: Friday noon prior to week of publication.

RULES

1. **Limit: 20 words**
2. **One ad per issue per person**
3. **Must be submitted in writing**
4. **Use home telephone numbers**
5. **For Sandia Corporation and AEC employees only**
6. **No commercial ads, please**

Next Deadline: Noon, July 22

FOR SALE—

OR TRADE: equity of $1400 in '55 32-ft. Shasta trailer at reduction, any reasonable offer considered. Norwood, Alb. 6-2109 after 6.

1951 BUICK Roadmaster Estate Wagon, clean, R and H, extras $995, very small down payment. Sortland, Alb. 4-3149.

GLIDER TRAILER, 25-ft., with air conditioner, clean, terms, Palkovic, Alb. 5-8284 after 5.

1952 CHEVROLET 216 engine, driven 27,000 miles, fits all models 1937-52, $50 or best offer. Clark, Alb. 6-8644.

BROWN LAMB mouton coat, new, size 10 or 12 $70. Padilla, Alb. 5-1514 after 5.

BROWN SOFA-BED, almost new $50. Cahill, Alb. 6-1728.

RIFLE SCOPE, Weaver, KV-Lee Dot Reticle $45. Haskell, ext. 33248.

FLOOR TYPE CAR COOLER, 6 volt 1955 model $30; also 2500 CFM evaporative cooler w/tubing, 2-speed switch, water control, like new $30. Sherwin, Alb. 5-8856.

GOOD 25-ACRE fenced-in irrigated farm, house, garage, etc., $10,500, low down payment, consider trade, 28 miles north on 85. Gabaldon, Alb. 4-0286.

FRUIT FARM, 18 acres, 1000 trees, 3 wells, 4-bedroom adobe home with radiant heat $35,000, substantial down. Throckmorton, Alb. 4-2234.

SAVAGE 300 bolt action rifle, used once; new cow caller for automobile, best offer. Robinson, Alb. 6-6675.

GO-9 TRANSMITTER $125. Stewart, ext. 46282.

STANDARD ROYAL typewriter model KM G11, pica type. Hunke, Alb. 6-8343.

WROUGHT IRON sectional divan and chair, gray and pink striped upholstery, six months old $100. Angstadt, Alb. 6-9753.

ELECTRONIC EQUIPMENT for complete TV shop; Detectron nucleometer; also fishing gear. Kirtley, Alb. 6-0637.

OUTBOARD MOTOR, 7½ HP Elgin, used very little $75. Marchant, Alb. 5-1152 after 5.

SHARPE CAP AND BALL pistol $12, Remington 721 deer rifle, .270 caliber with scope, make offer. Smitha, 8607 Menaul Alb. 6-9493.

BINOCULARS 710 x 15 $25; 75-ft. hog wire $15; cocker pup $75. Lewis, Alb. 6-6285.

ESSICK AIR CONDITIONER, 1500 CFM, portable, as is $25; bassinett $5. Spack, 7809 Bellamah NE, Alb. 6-6030.

CHICAGO ROLLERSKATES, white, size 8, only slightly used, cost $18.95 new, will sell for $12. Champion, Alb. 3-7670.

1953 PLYMOUTH 4-door sedan with turn signals and heater, 19,000 miles $995. Gallegos, 2213 Marie Pl. NW.

NEW CUTTING TORCH with gauges, goggles, lighter, cost $90 will sell at $60; also Maytag washer motor $10. Marchbanks, Alb. 4-3359, 314 Candelaria NE.

WHIRLPOOL WASHER with pump, like new $35; also sidecar for Cushman scooter. Baca, Alb. 2-5955.

EIGHT-MONTHS old female Fox Terrier. Miles, Los Lunas, Tel. 8254.

CONVERTED Singer Sewing machine $25. Kindschi, Alb. 6-0531.

1955 FAIRLANE Fordomatic, club sedan, two-tone green, 8 cylinder, R and H, purchased in April, take over payments. Also Electric hot water heater, counter model, 30 gal., American brand $75. McKenzie, Alb. 3-5948.

PRESTO FRENCH FRYER, deluxe size, used 4 times, cost $40, sell for $20. Koetter, Alb. 6-6904, 907 Florida SE.

MAYTAG DUTCH OVEN gas range 42-in. $150. Stewart, ext. 51272.

PIANO, Lester Betsy Ross spinet, limed oak, used 6 months, cost $900 new, sell for $750. Talley, Alb. 6-6748.

TWO BEDROOM HOME, northeast heights, patio, wall, landscaped $7500. Newman, Alb. 5-6777.

1941 PONTIAC 2-door sedan, R and H, good tires $75. Neiman, 10036 Britt NE, Alb. 6-8376.

TWO BEDROOM HOME, utility room, close to bus, schools, shopping center, bases, carpet, paved, lawns, wall, water softener. Vigil, Alb. 6-1578.

VACUUM CLEANER, Kirby. Hoff, Alb. 5-7274.

NORGE GAS RANGE, make offer. Luetkehans, ext. 31132, 1328 Luthy Circle.

100-ft. ORNAMENTAL WIRE 4-ft. fencing with gate and steel posts $20. Sechler, 4839 Idlewilde Lane SE, Alb. 6-5884.

FOUR TUBULAR chrome chairs $10, 9 x 12 blue loop shag rug $15. McMaster, Alb. 4-2703.

ROUND OAK DINING TABLE, 4 straight, 2 captain's chairs $65; practically new 3500 CFM air conditioner $100; 2 Hollywood beds $25 ea. Carter, ext. 45192.

SEVEN-FOOT SERVEL gas refrigerator $60. Morrison, ext. 46272.

THREE-BEDROOM HOME, hardwood floors, fireplace, patio, trees, Bandelier School district, includes refrigerator, gas range, GI appraised. Nason, Alb. 5-7309.

CAMP TRAILER, tear-drop shape, clean, full-size bed and kitchen $150. Runyan, Alb. 5-6719.

TENNIS RACKETS (2), nylon strings, rubber grips $5 each. Dameron, 221 Oak NE, Apt. 8, Alb. 2-1205 after 6.

GEIGER COUNTER, has count rate meter with three scales of sensitivity, complete with headphones $45. Kent, 1914 Virginia NE, Alb. 6-2115.

GIRL'S BICYCLE, new tires $20. Kelly, 904 Wilmoore Dr. SE, Alb. 7-9835.

TRAILER, utility type, 2 wheel $35. Quant, Alb. 6-9287, 720 Valencia NE.

BUICK RIVIERA, 1954 2-door, 14,000 actual miles, white sidewalls, R and H $2700, no dealers. Miller, 501 Manzano NE, Apt. "A".

BENDIX gas clothes dryer $75; 18-in. jig saw with stand and motor $40. Emig ext. 44170.

TWO BEDROOM HOUSE, nice location, low down payment. Randle, Alb. 6-1747.

RED FRIEZE loveseat sofa bed $50. Hart, Alb. 6-2100.

1949 HARLEY 61, hyd. fork, new battery and tires $275. Corbin, 1616 Columbia Dr. SE, Alb. 2-8402.

PARAKEET and cage, reasonable. Miller, 1248 Stanford Dr. NE, Alb. 6-3895.

30-GAL. HOT WATER TANK $25; United automatic coffee pot w/tray, creamer and sugar bowl, never used $20. Cervantes, Alb. 5-6832.

DIVAN, converts to double bed. Hansen, Alb. 5-1382.

MISCELLANEOUS living room furniture, hall runner, rug 12 x 22; upright piano; 1950 Jeepster. Mehlhouse, ext. 33277.

LUGGAGE CARRIER, all aluminum. Harper, 904 Monroe NE, Alb. 6-1657.

AMANA FREEZER, 18-ft. upright. Palmer, ext. 3-9283 after 5.

MOUNTAIN CABIN in Sandias, completely modern, own well and butane system, on acre of land, accessible year 'round, low down payment. Richardson, Alb. 5-2217.

MOUNTAIN HOMES and cabins, water, lights, gas, sewer, low down payment, easy terms. Erickson, Alb. 6-6717.

1951 FORD, 4-door, custom, very clean throughout $625. Morter, ext. 40137, 8609 Claremont NE, Hoffmantown.

NEW .22 COLT Woodsman; two 9 x 12 ft. rugs; red kitchen set, wood; 10-cu. ft. Servel refrigerator $100. Gibbs, ext. 36143.

WROUGHT IRON dinette set, table Formica top, 4 chairs yellow plastic $40. Kain, 1024 Alvarado SE, Apt. 10, ext. 33141.

TWO BEDROOM HOME, low payments 4% GI $8250; terms, walls, lawns, patio, immediate possession, 2704 Hermosa NE. Hall, Alb. 6-6737.

CROSLEY, 1949 Sedan, R and H, good tires, engine recently overhauled $150. Laskar, Alb. 3-1554.

WANTED—

RIDE from 4800 block Idlewilde Lane SE to Bldg. 802. Norma Sechler, Alb. 6-5884 after 6.

RIDE from 1329 Gerald Ave. SE (Kirtland Addn.) to Bldg. 880. Barbara Scott, Alb. 2-6830.

GIRL TO SHARE HOME. Have TV, washing machine. Private room. 10 minutes from base, occupancy Aug. 1. Glorya Maginnis, Alb. 6-5692.

DRIVER to join 4-man car pool vicinity Carlisle Plaza to parking lot east of Bldg. 860. Ted Gourd, Alb. 4-0280.

RIDE from Bldg. 892 four miles beyond Rt. 10 on 65. Floyd L. Maston, Box 53, ext. 25150.

ROOM for two or three, driving to Los Angeles about July 22 or 23. Chavez, Alb. 5-5461.

RIDE from 9009 Shoshone NE (Hesselden Homes) to vicinity of Bldg. 817 or 800. Baggett, ext. 21161.

RIDE from 3611 Headingly NE, Carlisle Plaza, Mankin section, to vicinity Bldg. 892, beginning July 17. Nadene K. Kindel, ext. 26142.

USED BABY SCALES. Robinson, Alb. 6-6675.

RIDE from 100 El Pueblo Road NW (Alameda) to Corp. Toya, ext. 31238.

CARE of infants in my home, day or hour. Mrs. Bruce Scott R. N., 905 Madeiria Dr. SE, Alb. 6-7139.

WILL CARE for children in your home near base, available after July 25. Mrs. Abergo, Alb. 5-8323.

RIDE from vicinity San Mateo and Menaul to Bldg. 802, Hammond, Alb. 6-4046.

MEMBERS OF the Weapons Subcommittee of the AEC General Advisory Committee visited Sandia recently. Dr. I. I. Rabi, Chairman, was unable to attend. Other members of the committee, shown here with R. E. Poole (center), Vice-President in charge of Development, Sandia Corporation, are (L to R) Dr. Richard W. Dodson, Dr. J. B. Fisk, Edwin M. McMillan and Jesse W. Beams. Dr. Fisk is executive Vice-Pesident of Bell Telephone Laboratories.

Invite Marksmen to Join Circle 10 Club

Marksmen who are interested in joining the Circle 10 gun club may contact the following Sandians who are officers of the group:

Robert E. Fox, 5352; Roy Brett, C. B. Kraus, and Robin A. Kelly, all of 2452. Fox may be contacted at his home, Alb. 6-1944.

Braves, White Sox – Keep Leads in Softball Leagues

Recent "A" League softball games kept the Braves in first place when they bombarded Jim Deakin's Yankees, 10 to 9. The lead changed hands several times with the Yankees leading as they went into the final inning.

Mel Otero hit a home run, a double, and two singles for the Braves. Frank Chavez collected a home run and a double for the Yankees.

The Dodgers and Yankees are tied for second place.

B League lead was retained by White Sox who took their recent game the easy way, winning by a forfeit. The Tigers defeated the Senators, 7-6, to remain in a second place tie.

Bud Gauerke led the Tiger hitters with 3 hits out of 4 tries while Jim Clements had 2 for 3 for the Senators. Only 6 hits were collected off Tiger Hurler Dan Grimm.

Soliciting Prohibited

John J. Bajart, Chief of the Personnel Security Division, Sandia Base, has requested the *Sandia Lab News* to remind persons working at Sandia of the regulation concerning solicitation on the Base.

No solicitation of any type by "off-base" organizations, social, religious, or political, in military areas is permitted except upon specific approval by the Base Commander.

No solicitation in AEC areas or Corporation premises is permitted unless specifically authorized. Inquiries concerning solicitations should be referred to the manager of the Employee Services, Training and Public Relations Department, 3120.

DRIVER to join car pool vicinity Rio Grande Blvd. NW between Ind. Sch. Rd. and Candelaria. Walker, ext. 49136.

FOUND—

ABANDONED BICYCLE, English style, with flat tire. Lost and Found, ext. 26149.

IN BLDG. 894: red plastic checkbook for Alb. National Bank. Lost and Found, ext. 26149.

TRADE—

TWO BEDROOM HOME, 325 Utah St. SE, for 3-bedroom home in Holy Ghost area. Baczek, Alb. 5-3429.

FOR RENT—

TWO BEDROOM HOME, dining area; plumbed for gas range $65 month, tenants pay utilities. Fresquez, Alb. 6-3333 after 5:30.

FREE—

FOR CAT FANCIERS:, fine selection to choose from. For dog fanciers: young, well-fed Cocker. Muench, ext. 2-7262.

Sandians Who Serve

This is another in a series of articles describing the community activities of Sandia Corporation employees.

Roy Maxwell, 1631—Bowlers' Sparkplug

Bowling with a big "B" occupies Roy "Smokey" Maxwell's evening and weekend hours.

He is president of the Albuquerque City Bowling Association after serving one year as vice-president and two years on its executive board.

He is state publicity chairman for the New Mexico State Bowling Association, also president of the All-Star League in the Duke City.

Spearheading bowling organizations is an old story for Smokey, who was president of four leagues, secretary of another and president of the city association when he lived in Dayton, Ohio. He is a member of the "700 Club," an American Bowling Congress' group of individuals who have bowled three games in league competition with a total of 700 pins or more.

Managing and organization of teen-age bowling clubs are now on the schedule for this Sandia kegler. And, in addition, he's in charge of interviews with Albuquerque talent on the popular weekly "Championship Bowling" TV show.

Smokey plans to launch a "bowler-of-the-month" award for Albuquerqueans, and he'll visit Milwaukee, Wis., this summer to represent the Duke City in ABC activities.

He is married and has a son, Donald, 15, who's an active participant in junior bowling leagues. The family lives at 1901 LaVeta Dr.

Sandia Corporation Employees' Softball League

"A" LEAGUE

	Won	Lost
Braves	3	0
Dodgers	2	1
Yankees	2	1
Athletics	1	2
Cubs	1	2
Indians	1	2
Orioles	1	2
Padres	1	2

"B" LEAGUE

White Sox	3	0
Stars	2	1
Tigers	2	1
Oaks	2	1
Seals	1	2
Senators	1	2
Solons	1	2
Angels	3	0

GOLFERS of 1640 take a photography break on the University course during recent inter-organization matches. Left to right: "Soup" Campbell, Ken Hankins, Roy Wilcox, Al Gower with his son, Mike, who caddied for his Dad, and Cecil Page.